2008, Mathematics - Grade 8

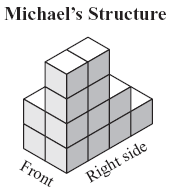
Question 28: Open-Response

Reporting Category: Geometry

Standard: 8.G.8

This item allows use of a calculator

Michael stacked cubes to make the structure shown below.



1. Draw the right side view of Michael's structure. Be sure to label your drawing "right side view."

Michael used a total of 14 cubes to make his structure.

2. Draw the front view of Michael's structure. Be sure to label your drawing "front view."

3. Draw one possible top view for Michael's structure. Be sure to label your drawing "top view." Show or explain how you got your answer.

2007, Mathematics - Grade 8

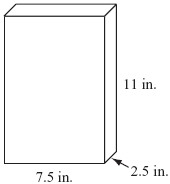
Question 22: Open-Response

Reporting Category: Geometry

Standard: 8.G.8

This item does not allow use of a calculator

Mora bought a box of cereal that was a rectangular prism with a length of 7.5 inches, a width of 2.5 inches, and a height of 11 inches, as shown below.



a. What is the total number of vertices of Mora’s cereal box? Show or explain how you got your answer.

b. What is the total number of faces of Mora’s cereal box? Show or explain how you got your answer.

c. In your Student Answer Booklet, draw a net (flat pattern) that can be folded to form a box with the same dimensions as Mora’s cereal box. Be sure to label your drawing of the net with the lengths, in inches, of the line segments.

2006, Mathematics - Grade 8

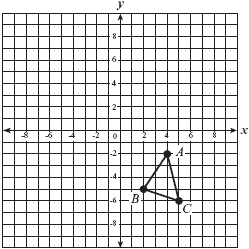
Question 22: Open-Response

Reporting Category: Geometry

Standard: 8.G.6

This item does not allow use of a calculator

Chelsea drew triangle ABC so that the vertices are at points A (4,−2), B (2,−5), and C (5,−6), as shown on the coordinate grid below.



1. Copy the coordinate grid and triangle ABC onto the grid in your Student Answer Booklet. Draw the reflection of triangle ABC across the x-axis to form triangle A'B'C'. List the coordinates for point A', point B', and point C'.

2. On the same coordinate grid, draw the reflection of triangle A'B'C' across the y-axis to form triangle A"B"C". List the coordinates for point A", point B", and point C".

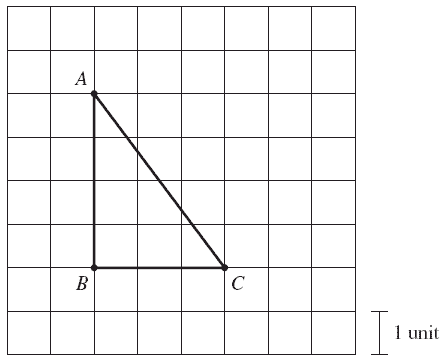
2005, Mathematics - Grade 8

Question 22: Open-Response

Reporting Category: Geometry

This item does not allow use of a calculator

The diagram below shows right triangle ABC drawn on a unit grid



The triangle in the image has a side AB that's 4 units long and a side BC that's 3 units long

1. What is the length, in units, of line segment AC? Show or explain how you got your answer.

2. What is the area, in square units, of triangle ABC? Show or explain how you got your answer.

3. In your Student Answer Booklet, draw a rectangle that has the same area in square units as triangle ABC. Be sure to label the dimensions of your rectangle.

2003, Mathematics - Grade 8

Question 22: Open-Response

Reporting Category: Geometry

Standard: 8.G.3

This item does not allow use of a calculator

In the figure below, the following statements are true.

\* Lines l, m, and n are parallel.

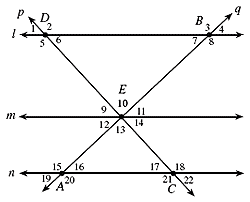
\* The perpendicular distance from line m to line n is less than the perpendicular

distance from line m to line l.

\* Lines m, p, and q intersect at point E.

\* Lines p and q are perpendicular.

\* Angles 6 and 7 are congruent



1. Are triangles DEB and AEC similar? Explain your answer.

2. Are triangles DEB and AEC congruent? Explain your answer.

3. List the 8 angles whose measures are equal to that of 2.

4. List all the angles whose measures are equal to that of 1.